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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,146	10/29/2003	Michael B. Galles	062986.0296	5506

5073 7590 09/09/2005

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EXAMINER	
TREAT, WILLIAM M	
ART UNIT	PAPER NUMBER
2183	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/696,146	GALLES ET AL.	
	Examiner	Art Unit	
	William M. Treat	2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 1-20 are presented for examination.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-10 and 16-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

4. The examiner is unable to find, in applicants' original disclosure, support for the claim language in claim 1 reciting "a central processing unit having an integrated memory controller operable to control access to the integrated memory nor support for the claim language in claim 16 reciting "a memory controller integrated in the central processing unit and operable to control access to and from local memory". There is nothing supporting the claim to the CPU having such a memory controller though there is support for the processor having such a controller. For this reason the examiner views the quoted language as representing new matter.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-10 and 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. As to why the examiner cites claims 1-10 and 16-20 as failing to point out and distinctly claim applicants' invention, see paragraph 4, *supra*.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-2 and 4-20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kabemoto et al. (Patent No. 5,890,217).

10. The examiner would suggest applicants read col. 16, line 5 through col. 20, line 18 and col. 28, line 55 through col. 29, line 10, at a minimum, before responding.

11. The arguments and rejections presented in the examiner's previous rejections in parent application 09/418,520 continue and are hereby incorporated by reference.

12. Claims 1-2, 5-6, 9-11 and 13-17 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Chase et al. (Patent No. 5,944,780).

13. The examiner would suggest applicants read (col. 5, line 30 through col. 6, line 20; col. 7, lines 44-61; and col. 8, lines 42-48), at a minimum, before responding.

14. The arguments and rejections presented in the examiner's previous rejections in parent application 09/418,520 continue and are hereby incorporated by reference.

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. This application currently names joint inventors.. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

17. Claims 3, 10, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chase et al. (Patent No. 5,944,780).

18. The arguments and rejections presented in the examiner's previous rejections in parent application 09/418,520 (in relation to claims 10, 18, and 20) continue and are hereby incorporated by reference.

19. As to claim 3, Chase taught the invention of independent claims 1 and 2 from which claim 3 depends (see paragraphs 6-8, *supra*). He did not teach overwriting the oldest memory reference with a new memory reference upon reaching a buffer limit nor any specific replacement strategy for such a situation. However, the examiner takes Official Notice of the fact that the least-recently-used method of replacement in caches

is old, well-known, and one of the conventional methods of cache replacement. In fact, there are at least 267 patents making reference to it as a replacement strategy in subclass 711/133, alone, with the oldest one having been issued a quarter century ago. One of ordinary skill would be motivated to use the least-recently-used replacement strategy with Chase because it is a conventional method which is well-known and well-understood by those of ordinary skill and is, therefore, easily and reliably implemented.

20. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kabemoto et al. (Patent No. 5,890,217).

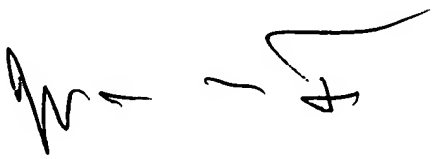
21. As to claim 3, Kabemoto taught the invention of independent claims 1 and 2 from which claim 3 depends (see paragraphs 6-8, *supra*). He did not teach overwriting the oldest memory reference with a new memory reference upon reaching a buffer limit nor any specific replacement strategy for such a situation. However, the examiner takes Official Notice of the fact that the least-recently-used method of replacement in caches is old, well-known, and one of the conventional methods of cache replacement. In fact, there are at least 267 patents making reference to it as a replacement strategy in subclass 711/133, alone, with the oldest one having been issued a quarter century ago. One of ordinary skill would be motivated to use the least-recently-used replacement strategy with Chase because it is a conventional method which is well-known and well-understood by those of ordinary skill and is, therefore, easily and reliably implemented.

22. The examiner is unable to determine the true scope of applicants' claims 1-10 and 16-20, see paragraphs 2-7, *supra*, so the examiner has merely repeated his earlier rejection of those claims. As to amended claim 11, note that it is merely previously

rejected claim 11 with much of the substance of previously rejected claim 13 incorporated therein. The only slight difference which might be perceived between current claim 11 and previously rejected claims 11 and 13 is the statement of the self-evident that when a memory reference is not found in the memory directory for the local memory then the reference is not to local memory but to a remote memory location. None of the amendments to claim 11 constitute patentable differentiation.

23. Any inquiry concerning this communication should be directed to William M. Treat at telephone number (571) 272-4175. The examiner works at home on Wednesdays but may normally be reached on Wednesdays by leaving a voice message using his office phone number. The examiner also works a flexible schedule but may normally be reached in the afternoon and evening on three of the four remaining weekdays.

24. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



WILLIAM M. TREAT
PRIMARY EXAMINER